AMSAT News Service Weekly Bulletins
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AMSAT NEWS SERVICE
ANS-022

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:
ans-editor@amsat.org

********** AMSAT 2006 Space Symposium **********

The AMSAT web team has posted informational pages on the AMSAT web site. You can find the announcement with many links at:
http://www.amsat-org/amsat-new/symposium

Future announcements including the Call For Papers, Online Registration and Online Hotel Registration will be available approximately 1 April 2006.

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In this edition:

* Astronaut Bill McArthur Scores WAC on UHF and WAS on VHF
* AO-7 Enters Period of No Eclipse
* AO-7 Control Electronics Still Functioning After 30+ Years in Space
* Satellite DX is Still Happening
* New Photos From the XI-V Cubesat Available
* AMSAT Journal Articles Needed - Deadline Nears
* Get Ready For SuitSat
* NASA Prepares For February 3 Spacewalk
* OSCARLocator Photo Gallery Invites Contributions

SB SAT @ AMSAT $ANS-022.01
Astronaut Bill McArthur Scores WAC on UHF and WAS on VHF

AMSAT News Service Bulletin 022.01
From AMSAT HQ SILVER SPRING, MD.
January 22, 2006
To All RADIO AMATEURS
BID: $ANS-022.01

Last weekend, January 14-15 UTC, Astronaut Bill McArthur aboard the International Space Station operated on the UHF band exclusively. A report received from Keith, ZS6TW in South Africa indicates that Bill has completed a sweep of Working All Continents on UHF.

Keith wrote on the ISS Fan Club site, http://www.issfanclub.com, "Bill was active on UHF voice over RSA on the January 14, 20:00 UTC pass. Bill contacted me followed by Greald, ZS6BTD in Johannesburg. He said that our contacts had just completed his worked all continents. It was a pleasure speaking to him again. 73's Keith, ZS6TW."

The UHF frequency NA1SS is 437.55 MHz simplex when this mode is active.

This is the first time an ISS crew member has worked all 7 continents

on the 430 MHz band. McArthur had previously worked all continents on 145 MHz to be the second ISS crew member to complete that feat. Mike Fincke worked all 7 during his tour as Science Officer on Expedition 9.

Be sure to send in your QSL cards so Bill can claim his award. Refer to the ARISS QSL page for information on how to QSL: http://www.rac.ca/ariss/oindex.htm#QSL's

On January 21, Ed, KL7UW; Dale, KL7XJ; and Kevin, KL0RG worked NA1SS on pass #41012 so Bill has now completed WAS from space on the 2 meter band.

Congratulations Bill and thank you for all the time you give to talk on the radio!

[ANS thanks Kenneth, N5VHO for the above information]

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SB SAT @ AMSAT $ANS-022.02
AO-7 Enters Period of No Eclipse

AMSAT News Service Bulletin 022.02
From AMSAT HQ SILVER SPRING, MD.
January 22, 2006
To All RADIO AMATEURS
BID: $ANS-022.02

AO-7 has entered into a period where it does not go into eclipse. The orbit is precessing and at this time of the year it is at (and over) the grey line on the western edge. Contrary to previous years, AO-7's orbit has precessed to the point where it does not go into an eclipse. This is the first time since it "awoke" that this has happened.

Emily Clarke, W0EEC has published some charts on the AO-7 log website that illustrate the progression over the past few years that include a chart of AO-7s eclipse durations and the latitude of when eclipse happens. You can see them at:

http://www.emilyshouse.com/experthams/ao7/Eclipse.php

Although not drawing any conclusions about mode of operation Emily states that this is going to be an interesting period, "Since AO-7 will operate in full sun without any power loss it will be interesting to see if and when it's mode changes". Comments to her directly are invited at her email via AMSAT.ORG.

Emily also wants to thank all those who have been loyal contributors to the website and indicates that the increased logging on the AO-7 log is helping to enhance the ability to collect data.

"It has been very helpful to collect information about this intrepid satellite, and hopefully the data will help enhance future designs. AO-7 is breaking the mold, and the more data we can collect the better we can improve our understanding of the space environment"

AO-7 was launched in 1974 and was a multi-national project between the US, Canada, Germany and Australia. It is the oldest operational amateur satelllite.

[ANS thanks Emily, W0EEC for the above information]

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SB SAT @ AMSAT $ANS-022.03
AO-7 Control Electronics Still Functioning After 30+ Years in Space

AMSAT News Service Bulletin 022.03
From AMSAT HQ SILVER SPRING, MD.
January 22, 2006
To All RADIO AMATEURS
BID: $ANS-022.03

With the AO-7 satellite experiencing sunlit conditions for the next several weeks radio amateurs have had an opportunity to determine additional functionality of this 30+ year old satellite. With its batteries long dead, AO-7 is only operational when its solar cells are adequately illuminated by sunlight.

John, LA2QAA noted, "After checking the log on 'The AO-7 Resource Page', I estimated the switchover between modes on AO-7 to be at approximately 08:30 UTC daily. However, on the 17th of January, I noticed the changeover happened at precisely 08:57 in the middle of a Mode-B QSO with UA9CP. I immediately switched to mode-A and carried on the QSO therby confirming the time of the mode change on that particular day. This shows that the 24 hour timer is functioning as it was designed to do 31 years ago!"

One of the AO-7 pioneers, Jan W3GEY brings us up to speed on AO-7's internal timer, "If telemetry channel 2C seems to increment about every 15 minutes then the clock is still working."

Mike, N1JEZ, AO-7 Control Operator, suggests, "So what we really want to do is monitor the telemetry and see if Channel 2C is really incrementing and that the switch occurs near 95 in the cycle. One other thing I'd like to try is to command the satellite to reset the timer. This should be fun!"

Stay tuned as more is learned of the oldest operational amateur satellite in orbit.

For more information refer to The AO-7 Resource Page at:
http://www.planetemily.com/ao7/

[ANS thanks John, LA2QAA, Jan, W3GEY and Mike, N1JEZ for the above information]

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SB SAT @ AMSAT $ANS-022.04
Satellite DX is Still Happening

AMSAT News Service Bulletin 022.04
From AMSAT HQ SILVER SPRING, MD.
January 22, 2006
To All RADIO AMATEURS
BID: $ANS-022.04

In this period prior to the launch of the next high earth orbit amateur radio satellites reports of satellite DX show that there are still exciting opportunities for long-range contacts. Timing and location are key factors.

AO-7, in a polar orbit approximately 900 miles above the earth has provided some DX. Ron, K8DID in Michigan reports that he worked Victor, YL2LW in Latvia on AO-7 in Mode B this past week. The land distance between these stations is 7316 km.

Drew, KO4MA in Florida has had a past AO-7 contact with Andre, PH7AT in the Netherlands. The land distance between these stations is 7511 km.

Andre, PH7AT says a prior AO-7 contact with Randy, WB4LHD in Tennessee is at a distance 7408 km.

[ANS thanks Emily, W0EEC for the above information]

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SB SAT @ AMSAT $ANS-022.05
New Photos From the XI-V Cubesat Available

AMSAT News Service Bulletin 022.05
From AMSAT HQ SILVER SPRING, MD.
January 22, 2006
To All RADIO AMATEURS
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Mineo, JE9PEL says new photos from space from the camera aboard the XI-V cubesat can viewed on-line at:

http://www.ne.jp/asahi/hamradio/je9pel/xivpict2.htm

These photos were taken when the satellite was over Canada, 64.5053N and 99.6834W. You can see the sunrise near the earth.

[ANS thanks Mineo, JE9PEL for the above information]

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SB SAT @ AMSAT $ANS-022.06
AMSAT Journal Articles Needed - Deadline Nears

AMSAT News Service Bulletin 022.06
From AMSAT HQ SILVER SPRING, MD.
January 22, 2006
To All RADIO AMATEURS
BID: $ANS-022.06

Ed, WA4SWJ, Editor of The AMSAT Journal reminds members that the deadline for the next edition is drawing near. Ed says, "Don't forget I need your Journal articles soon. I've received a couple so far but can always use more. Time is running out. I'd like to have them by this coming Saturday if at all possible. Of course I'll take them late but that doesn't help me get it to the printer on time. Thanks for your great support!"

[ANS thanks Ed, WA4SWJ for the above information]

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SB SAT @ AMSAT $ANS-022.07
Get Ready For SuitSat

AMSAT News Service Bulletin 022.07
From AMSAT HQ SILVER SPRING, MD.
January 22, 2006
To All RADIO AMATEURS
BID: $ANS-022.07

Miles, WF1F sends the following International Space Station ARISS

SuitSat Project Status Report.

ARISS to activate a new hand launched educational satellite project from the International Space station. The new educational experiment is called SuitSat. The SuitSat project is onboard the International Space Station and is being prepared for activation very soon. The SuitSat project has a tentative activation date of February 3, 2006. The SuitSat activation will take place during the ISS crew space walk. SuitSat will be a hand launched by the ISS crew during their early February SpaceWalk.

Since we have determined that the batteries in SuitSast may last only a few days, it is suggested that radio amateurs prepare now to receive the first transmissions so as not to miss out on this Historical event!
The current expected life of the SuitSat project is approximately 2 to 6 days. If you delay in setting up your station you may miss out on this educational experiment.

What is SuitSat:
In short, the crew will toss an Old spacesuit out the airlock and let it fly away as its own satellite. The Space Station crew have attached an Amateur Radio beacon transmitter to the spacesuit. The SuitSat project will broadcast telemetry and voice messages to earth for as long as the batteries last. There are no solar cells on this satellite.

Anyone with a simple FM receiver or VHF police scanner should be able to hear the signals from SuitSat on 145.99 MHz as it orbits around the earth 15 times a day.

Voice Telemetry:
The SuitSat project will be transmitting on 145.990 MHz FM and will consist of Voice Telemetry, giving Mission Time, Suit Temperature and Battery Voltage, Voice Greeting messages in multiple languages, and an SSTV image using Robot 36 format. This entire transmission cycle will repeat every 9 minutes until the batteries discharge.

SuitSat Transmitter:
The SuitSat transmitter is a Kenwood TH-K2, a small hand held radio, which will transmit a 1 watt FM signal from SuitSat on 145.990 MHz FM Downlink only. There is no uplink for this satellite.

The ARISS team is also planning on using the Kenwood D700 transceiver aboard the ISS to rebroadcast the SuitSat signal on 437.800 MHz FM. This will allow you to hear SuitSat while ISS is in range of your station.

For more specific details on the SuitSat project, please review the AMSAT and related links below.

AMSAT SuitSat information:
http://www.amsat.org/amsat-new/articles/SuitSat/

ARISS SuitSat Details:
http://www.amsat.org/amsat-new/articles/BauerSuitsat/index.php

ARISS video on SuitSat September 2005
mms://media.wmfd.com/amsat/SuitSat.wmv

[ANS thanks Miles, WF1F for the above information]

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SB SAT @ AMSAT $ANS-022.08
NASA Prepares For February 3 Spacewalk

AMSAT News Service Bulletin 022.08
From AMSAT HQ SILVER SPRING, MD.
January 22, 2006
To All RADIO AMATEURS
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NASA is hosting a preview session about the next spacewalk by the International Space Station Expedition 12 crew at 2 p.m. EST, Friday, January 27 from NASA's Johnson Space Center, Houston. The event airs live on NASA TV with questions from media at participating agency locations.

The spacewalk by station Commander Bill McArthur and Flight Engineer Valery Tokarev is Feb. 3. It airs live on NASA TV with coverage starting at 4:30 p.m. EST. The six-hour spacewalk starts at 5:20 p.m. EST. (SuitSat is likely to be released during this spacewalk.)

For digital downlink information and access to NASA TV's Public Channel on the Web in RealPlayer, RealAudio, or Windows Media Player, visit:

http://www.nasa.gov/ntv

[ANS thanks NASA for the above information]

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SB SAT @ AMSAT $ANS-022.09
OSCARLocator Photo Gallery Invites Contributions

AMSAT News Service Bulletin 022.09
From AMSAT HQ SILVER SPRING, MD.
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To All RADIO AMATEURS
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Emily, W0EEC has set up a temporary photo gallery for people to upload photos of their OSCARLocators and other early satellite tracking systems.

The gallery is located at:
http://www.emilyshouse.com/gallery/OSCARLocators

A few tips and rules:

1) To upload photos you must login (not required to view the gallery). The login is OSCAR (all upper case) and the password is seven (all lower case).

2) Before uploading photos it's a good idea to resize them to 800 x 600. This will make sure that the upload time (2min) isn't exceeded.

3) After uploading, edit the caption. Please include your name and description.

New photos are added to the end of the gallery so you might have to page back to find your upload.

This is self-policing, so if you find any uploads that are inappropriate please let me know via email (w0eec@amsat.org) so I can remedy the situation.

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In addition to regular membership, AMSAT offers membership in the

President's Club. Members of the President's Club, as sustaining donors
to AMSAT Project Funds, will be eligible to receive additional benefits.
Application forms are available from the AMSAT Office.

73,
This week's ANS Editor,
JoAnne Maenpaa, WB9JEJ
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